

PROJECT DESCRIPTION

I. GENERAL

THIS PROJECT INVOLVES THE REPLACEMENT OF EXISTING SIGNAL HEADS WITH LED SIGNAL HEADS. INSTALLATION OF LED COUNTDOWN PEDESTRIAN SIGNAL HEADS, VIDEO DETECTION, APS PUSHBUTTONS AND SIGNS AT THE INTERSECTION OF MD 212 (POWDER MILL ROAD) AND THE HIGH POINT HIGH SCHOOL DRIVEWAY IN PRINCE GEORGE'S COUNTY. MD 212 IS ASSUMED TO RUN IN AN NORTH-SOUTH DIRECTION.

II. INTERSECTION OPERATION

THIS INTERSECTION CURRENTLY OPERATES IN A NEMA THREE-PHASE FULL-TRAFFIC-ACTUATED MODE WITH AN ALTERNATE PEDESTRIAN PHASE WITH AUDIBLE ACTUATION FOR THE EAST LEG OF THE INTERSECTION AND WITH AN AUDIBLE ACTUATION FOR A PEDESTRIAN PHASE ACROSS THE NORTH LEG OF MD 212.

III. APS NOTE

TO CROSS POWDER MILL ROAD:

A. WHEN PEDESTRIAN LOCATES AND PRESSES PUSHBUTTON FOR AN EXTENDED TIME, THE PUSHBUTTON UNIT MESSAGE WILL BE "WAIT TO CROSS POWDER MILL AT SCHOOL DRIVEWAY, WAIT."

B. WHEN WALK PHASE BEGINS, THE MESSAGE WILL BE A RAPID TICK WHICH WILL LAST FOR THE DURATION OF THE WALK PHASE.

TO CROSS SCHOOL DRIVEWAY:

A. WHEN PEDESTRIAN LOCATES AND PRESSES PUSHBUTTON FOR AN EXTENDED TIME, THE PUSHBUTTON UNIT MESSAGE WILL BE "WAIT TO CROSS SCHOOL DRIVEWAY AT POWDER MILL, WAIT."

B. WHEN WALK PHASE BEGINS, THE MESSAGE WILL BE A RAPID TICK WHICH WILL LAST FOR THE DURATION OF THE WALK PHASE.

EQUIPMENT LIST

B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY CONTRACTOR

ITEM NO.	QUANTITY	UNIT	DESCRIPTION
900000	1	EA	VIDEO DETECTION INTERFACE EQUIPMENT: 1-8 CAMERAS
900000	94	SF	SHEET ALUMINUM GROUND MOUNTED SIGN 8 - S1-1 FYG (36"x36") 4 - M6-2(R) FYG (21"x15") 4 - M6-2(L) FYG (21"x15") 4 - R10-3(1) (9"x15")
900000	10	SF	SHEET ALUMINUM SPAN MOUNTED SIGN 1 - D-3(1) (84"x16")

EQUIPMENT LIST

A. EQUIPMENT TO BE FURNISHED BY STATE HIGHWAY ADMINISTRATION

ITEM NO.	QUANTITY	UNIT	DESCRIPTION
120500	1	EA	MAINTENANCE OF TRAFFIC
203030	2	CY	TEST PIT EXCAVATION
585621	680	LF	12" WHITE PREFORMED THERMOPLASTIC MARKING LINES
585625	85	LF	24" WHITE PREFORMED THERMOPLASTIC MARKING LINES
634300	180	LF	STANDARD TYPE A COMBINATION CURB AND GUTTER 12" GUTTER PAN 8" DEPTH
655105	910	SF	5" CONCRETE SIDEWALK
655120	50	SF	DETECTABLE WARNING SURFACES
800000	1	EA	2 WIRE CONTROL UNIT
800000	4	EA	AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON STATION & SIGN
800000	4	EA	LED 16" COUNTDOWN PEDESTRIAN SIGNAL HEADS
800000	1	EA	REMOVE & DISPOSE MATERIAL AND EXISTING EQUIPMENT PER ASSIGNMENT
800000	1	EA	VIDEO DETECTION CAMERA AND CABLE UP TO 500'
801001	3	CY	CONCRETE FOR SIGNAL FOUNDATION
801106	103	LF	WOOD SIGN SUPPORTS 4" x 6"
802145	1	EA	ADJUST EXISTING HANDHOLE
802501	85	LF	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
805115	65	LF	3" SCHEDULE 80 RIGID PVC CONDUIT - BORED
805125	45	LF	2" SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
805135	70	LF	3" SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
805150	65	LF	3" SCHEDULE 80 RIGID PVC CONDUIT - SLOTTED
810605	4	EA	NONINVASIVE DETECTOR LEAD IN CABLE UP TO 1000'
811001	4	EA	ELECTRICAL HANDHOLE
811002	1	EA	REMOVE ELECTRICAL HANDHOLE
813014	94	SF	INSTALL GROUND MOUNTED SIGN (INCLUDING ALL HARDWARE)
813015	80	SF	INSTALL OVERHEAD SIGN (INCLUDING ALL HARDWARE)
813022	23	SF	REMOVE EXISTING GROUND MOUNTED SIGNS
818004	4	EA	10 FOOT BREAKAWAY PEDESTAL POLE
860284	21	EA	12" LED VEHICULAR TRAFFIC SIGNAL HEAD SECTION
861105	660	LF	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 14 AWG)
861107	700	LF	ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)
861108	970	LF	ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 AWG)

C. IF THE CABINET IS TO BE REMOVED SHA FORCES SHALL REMOVE THE CONTROLLER AND ALL AUXILIARY EQUIPMENT FROM THE CONTROLLER CABINET. THE CABINET AND ALL OTHER MATERIALS TO BE REMOVED BY THE CONTRACTOR SHALL BECOME THE PROPERTY OF THE CONTRACTOR.

CONTACTS

OFFICE OF TRAFFIC AND SAFETY

MR. AVIJIT MAJI
CHIEF, TRAFFIC OPERATIONS
410-787-7630

MR. ROBERT SNYDER
ASSISTANT DIVISION CHIEF, TRAFFIC OPERATIONS
410-787-7630

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CHIEF, SIGNAL OPERATIONS SECTION
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MR. MICHAEL STOCKER
SUPPLY OFFICER IV (SIGNAL SHOP WAREHOUSE)
410-787-7696

DISTRICT (DISTRICT 3 - PRINCE GEORGE'S)

MR. BRIAN YOUNG
DISTRICT ENGINEER
301-513-7311

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301-513-7404

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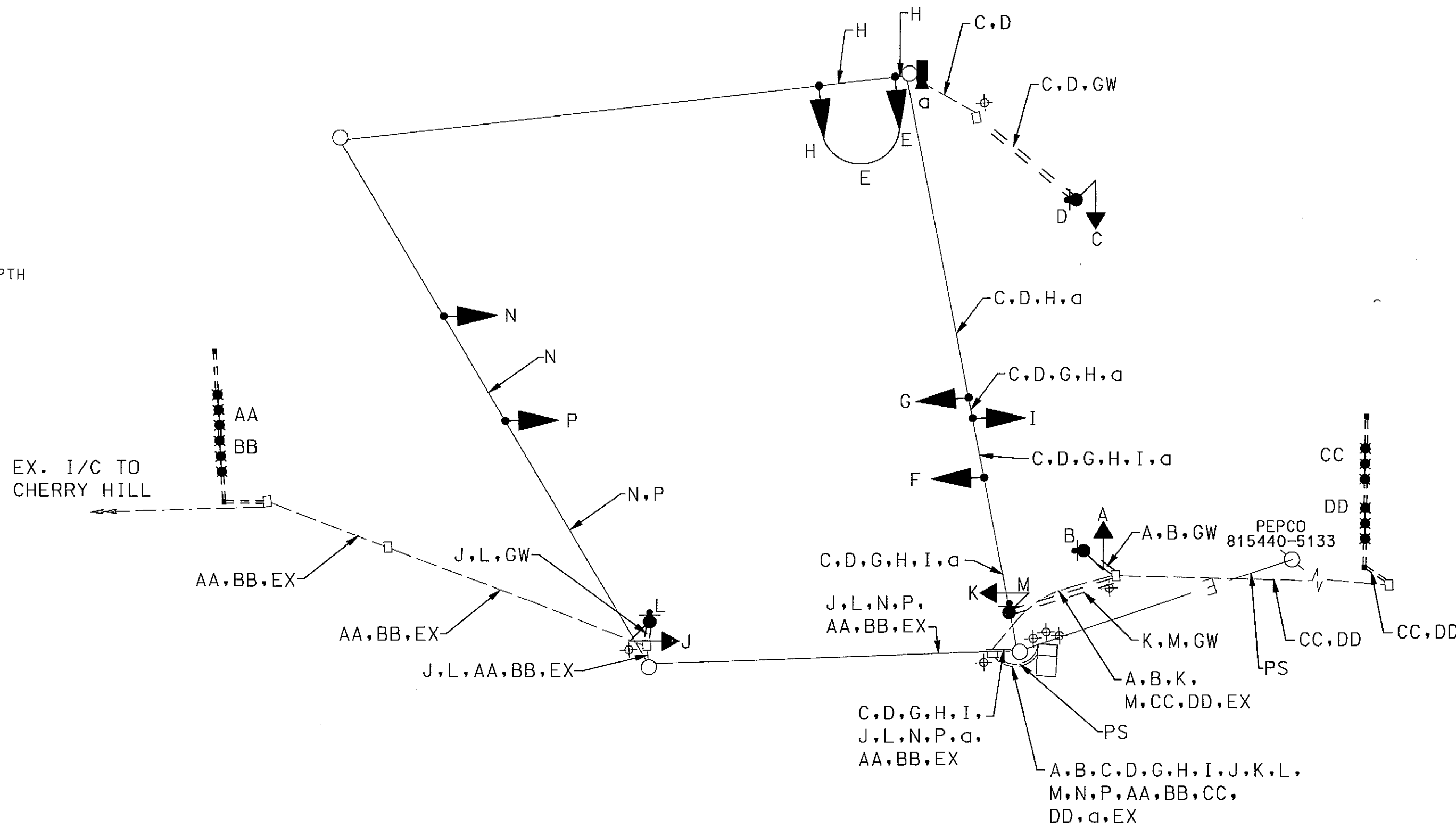
MR. KEVIN NOWAK & MR. DUANE BERNARD
ASSISTANT DISTRICT ENGINEER - CONSTRUCTION
301-513-7336

MR. TOM FOUNTAIN
ASSISTANT DISTRICT ENGINEER - MAINTENANCE
301-513-7304

PHASE CHART

	1	2	3	4	5	6	7	8	9	10	11	
	(R) (Y) (G)	(R) (Y) (G)	(R) (Y) (G)	(R) (Y) (G)	(R) (Y) (G)	(R) (Y) (G)	(R) (Y) (G)	(R) (Y) (G)	(R) (Y) (G)	(R) (Y) (G)	(R) (Y) (G)	
PHASE 2 & 6	G	G	G	G	G	R	R	WALK	WALK	DW	DW	←
PED CLEARANCE	G	G	G	G	G	R	R	FL/DW	FL/DW	DW	DW	→
2 & 6 CHANGE	Y	Y	Y	Y	Y	R	R	DW	DW	DW	DW	→
PHASE 4	R	R	R	R	R	G	G	DW	DW	DW	DW	↑
4 CHANGE	R	R	R	R	R	Y	Y	DW	DW	DW	DW	↑
PHASE 4 ALT	R	R	R	R	R	G	G	DW	DW	WALK	WALK	↑
PED CLEARANCE	R	R	R	R	R	G	G	DW	DW	FL/DW	FL/DW	↑
4 ALT CHANGE	R	R	R	R	R	Y	Y	DW	DW	DW	DW	↑
FLASHING OPERATION	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	DARK	DARK	DARK	DARK	←

WIRING DIAGRAM



WIRING KEY

- F,G,H,I, - 7-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
N,P
A,C,E,J,K - 5-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
B,D,L,M - 2-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
a - VIDEO DETECTION LEAD-IN CABLE
AA,BB, CC,DD - MICROLOOP PROBE LEAD-IN CABLE
+ - EXISTING GROUND ROD
GW - NO.6 A.W.G STRANDED BARE COPPER GROUND WIRE
PS - POWER SOURCE
EX - EXISTING SIGNAL CABLE



STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF TRAFFIC & SAFETY
TRAFFIC ENGINEERING DESIGN DIVISION

MD 212 (POWDER MILL ROAD) AT
HIGH POINT HIGH SCHOOL
POWDER MILL, MD

GENERAL INFORMATION SHEET

SCALE N.T.S. DATE 12-13-12 CONTRACT NO. PG7865477

DESIGNED BY MAW COUNTY PRINCE GEORGE'S
DRAWN BY MAW LOGMILE 16021207.09
CHECKED BY KMP TIMS NO. J191
F.A.P. NO. SEE TITLE SHEET TOD NO.

TS NO. 17BE-GI DRAWING SG-05 OF 05 SHEET NO. 2 OF 2

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